

In the Claims:

Claims 1-8 (Canceled)

9. (Currently amended) A method of assembling the elements of a structure based on a plastic transparent to laser radiation, comprising a cellular honeycomb core and two skins on either side of the core, perpendicular to the walls of the cells, wherein the skins are uniaxially or biaxially oriented, in which at least one of the skins and the core are assembled by welding using laser radiation, and at least one of the elements to be assembled comprises, in the vicinity of at least one part of its surface, a layer that at least partly absorbs the laser radiation, the welding taking place by the melting of this layer by means of the laser radiation in the weld zones without destroying the orientation, wherein the skins are provided on one of their faces near their surface with a radiation – absorbent layer, and the core and the skins themselves being transparent to the radiation whereby the transparent cellular honeycomb core is sandwiched between the two skins.

10. (previously presented) The method according to claim 9, wherein the plastic is a PP or a PVC.

11. (previously presented) The method according to claim 9, wherein the elements to be welded by means of the laser radiation further include the cells of the core and wherein the latter is obtained by the thermoforming and folding of a plastic sheet, the laser-radiation-absorbent layer of which is located on either side of this sheet.

12. (previously presented) The method according claim 9, wherein the core is obtained by a continuous manufacturing process and wherein the welding of the skins by means of the laser radiation takes place in line with this manufacturing process.

13. (previously presented) The method according claim 12, wherein the continuous process for manufacturing the core is an extrusion process and wherein the laser-radiation-absorbent layer is located on only one face of each of the two skins.

14. (previously presented) The method according to claim 12, wherein the continuous process for manufacturing the core is a process involving the thermoforming and folding of a sheet that includes, on either side, the laser-radiation-absorbent layer in order to form unwelded cells ; wherein the unwelded cells are assembled by welding using the laser radiation and wherein the two skins do not contain the radiation-absorbent layer.

15. (previously presented) The method according to claim 12, wherein the continuous process for manufacturing the core is a process involving the thermoforming and folding of a sheet in order to form unwelded cells ; wherein the cells remain unwelded but are optionally assembled by bonding using a solvent-free adhesive applied by coating the surface of the sheet in the zones to be bonded and wherein the laser-radiation-absorbent layer is located on only one face of each of the two skins.

16. (Canceled)